



9.14 TOWN OF PAWLING

This section presents the jurisdictional annex for the Town of Pawling.

9.14.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
David Kelly, Town Supervisor 160 Charles Colman Blvd., Pawling, NY 12564 845-855-4464 dpkelly@pawling.org	Bill Johnson, Town Councilman 160 Charles Colman Blvd., Pawling, NY 12564 845-855-4464 billj5@hughes.net

9.14.2 Municipal Profile

The Town of Pawling is located in the southeastern quadrant of Dutchess County. It completely surrounds the Village of Pawling and is bordered by the Town of Dover to the north, the Town of Beekman to the west and northwest, Putnam County to the south, and the State of Connecticut to the east. The Town is home to several hamlets, including Baker Corner, Holmes, Hurd Corners, Quaker Hill, West Pawling, and Woodinville. The Town emphasizes its historical and cultural heritage through numerous open spaces, scenic views, small town charm, and rural character. The Town has a very low poverty rate (1.7 percent) and consists of primarily single family, residential homes (Comprehensive Plan 2012).

The Town's transportation network contains over 88 miles of roadways, with State Route 22 serving as the primary transportation corridor and commercial focus. Residents also have access to commuter rail through the Metro-North Railroad. The Town's more vulnerable structures and critical facilities will be discussed in further detail throughout the Hazard Mitigation Plan and this annex.

The Town comprises a total area of 35.72 square miles, of which, 0.11 square miles is water and 35.61 square miles is land. The Town's FIS has identified the following proximate waterways as potential sources of vulnerability for flooding – East Branch of the Croton River and its tributary, as well as the Swamp River. Additionally, the Tenmile River drainage area, which covers approximately 210 square miles, includes the Town of Pawling in the south part of its range.

According to the 2010 U.S. Census, the population of the Town was 8,463.

Growth/Development Trends

The Town of Pawling did not note any recent residential/commercial development since 2010 or any major residential or commercial development, or major infrastructure development planned for the next five years in the municipality.

Table 9.14-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to present					
None noted to date.					
Known or Anticipated Development in the Next Five (5) Years					



Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
None noted to date.					

* Only location-specific hazard zones or vulnerabilities identified.

9.14.3 Natural Hazard Event History Specific to the Municipality

Dutchess County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this Plan, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.14-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
August 26 – September 5, 2011	Hurricane Irene	DR-4020	Yes	Many roads in the Town were closed due to downed wires and trees

9.14.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Town of Pawling. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Town of Pawling.

Table 9.14-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Coastal Storm	100-year MRP: \$1,989,489.00 500-year MRP: 17785873 Annualized: \$200,109.00	Frequent	48	High
Drought	Damage estimate not available	Frequent	42	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$428,365 2,500-Year GBS: \$6,371,403	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	30	Medium
Flood	1% Annual Chance: \$10,710,576	Frequent	36	High



Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Severe Storm	100-Year MRP: \$1,989,489 500-year MRP: \$17,785,873 Annualized: \$200,109	Frequent	48	High
Winter Storm	1% GBS: \$16,295,013 5% GBS: \$81,475,063	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$2,317,710,919	Frequent	42	High

Notes:

GBS = General building stock; MRP = Mean return period.

a. The general building stock valuation is based on the custom inventory generated for the municipality and based on improved value.

b. High = Total hazard priority risk ranking score of 31 and above

Medium = Total hazard priority risk ranking of 20-30+

Low = Total hazard risk ranking below 20

c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the estimated value of contents. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages. Loss estimates for the flood and earthquake hazards represent both structure and contents. Potential flood loss estimates were generated using Hazus-MH 2.2 and the 2011 FEMA DFIRM for the 1-percent annual chance event. For the wildfire hazard, the improved value and estimated contents of buildings located within the identified hazard zones is provided.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Pawling.

Table 9.14-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Town of Pawling	23	9	\$36,875.24	1	0	6

Source: FEMA Region 2, 2014

(1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 12/31/2014. Please note the total number of repetitive loss properties does not include the severe repetitive loss properties. The number of claims represents claims closed by 12/31/14.

(2) Total building and content losses from the claims file provided by FEMA Region 2.

(3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file. Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude

Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.14-5. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(1)
Cedar Valley Townhomes Well #1	Well	X	X	-	-	-
Pawling Fire	Fire/EMS		X	-	-	-



Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(1)
Department St. 1						

Source: Dutchess County, NYGIS

Note (1): HAZUS-MH 2.2 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).

Note (2): In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.2

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- In the Town of Pawling, near the Town's corporate limits with the Town of Dover, Swamp River floodwaters have damaged a number of commercial and industrial structures (FEMA FIS).
- The Town of Pawling Highway Department reports that the Town's greatest problem after most disasters is downed trees with wires blocking roadways. An approach combining increased efforts by utility companies to do more extensive tree trimming and removal, and by the Town to continue its own tree removal program, would help to mitigate this problem.
- TransCare EMS services the Town of Pawling, and has reported that electricity and communications utility infrastructure within the locality is prone to power failure, and not sufficiently disaster resistant to support EMS functions during and after natural hazard events. Further, the company recommends improving communications regarding road closures and pending road closures during natural hazard events between the Town and private emergency response companies and personnel.



9.14.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Pawling.

Table 9.14-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Comprehensive Plan	Yes, Updated 7/11/12	Local	Town Board	Amendments to the Code of the Town of Pawling Chapter 215 Zoning and Chapter A230 Subdivision of Land
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	No	-	-	-
Stormwater Management Plan	Yes	Local	Stormwater Manager officer	MS4, MS4 Annual Report
Open Space Plan	Yes	Local	Town Board	Town of Pawling Comprehensive Plan, 2012
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			
Economic Development Plan	No			
Comprehensive Emergency Management Plan	No			
Emergency Response Plan	No			
Post-Disaster Recovery Plan	No			
Transportation Plan	Yes	Local	Town Board	Town of Pawling Comprehensive Plan, 2012
Strategic Recovery Planning Report	No			
Other Plans:	-	-	-	-
Regulatory Capability				
Building Code	Yes	State	Code Enforcement Officer	New York State Uniform Fire Prevention and Building Code
Zoning Ordinance	Yes	Local	Zoning	Ch. 215 Zoning



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
			Administrator	
Subdivision Ordinance	Yes	Local	Zoning Administrator	Ch. A230. Subdivision of land
NFIP Flood Damage Prevention Ordinance	Yes	Local	Code Enforcement Officer	Ch. 107 Flood Damage Prevention
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	No	-	-	-
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Planning Board	Ch. 215-47 Site plan approval
Stormwater Management Ordinance	Yes	Local	Town Board, CEO	Ch. 171. Stormwater, Soil Erosion, and Sediment Control
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Town Board, CEO	Ch. 170. Storm Sewers
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	-	-
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	No			

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Pawling.

Table 9.14-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	
Environmental Board/Commission	No	
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	No	
Mutual Aid Agreements	No	
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Planning Board
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Building Department
Planners or engineers with an understanding of natural	Yes	Code Enforcement Officer, Stormwater Manager



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
hazards		
NFIP Floodplain Administrator	Yes	Code Enforcement Officer, Stormwater Manager
Surveyor(s)	No	
Personnel skilled or trained in GIS and/or HAZUS-MH applications	No	
Scientist familiar with natural hazards	No	
Emergency Manager	No	
Grant Writer(s)	No	
Staff with expertise or training in benefit/cost analysis	No	
Professionals trained in conducting damage assessments	No	

Fiscal Capability

The table below summarizes financial resources available to the Town of Pawling.

Table 9.14-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	No
User fees for water, sewer, gas or electric service	No
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	No
Other	No

Community Classifications

The table below summarizes classifications for community program available to the Town of Pawling.

Table 9.14-9. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes)	No		



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
1 to 10)			
Storm Ready	No	-	-
Firewise	No	-	-
Disaster/Safety Programs in/for Schools	No		
Organizations with Mitigation Focus (advocacy group, non-government)	No		
Public Education Program/Outreach (through website, social media)	No		
Public-Private Partnerships	No		

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

Walter Artus, Code Enforcement Officer and Stormwater Manager

Flood Vulnerability Summary

The Town has not noted any specific hazard or flood vulnerability details, to date.

Resources

The Town has not noted any specific flood control/mitigation resources, to date.

Compliance History

As of January 31, 2015 there are 21 policies in force, insuring \$4,946,700 of property with total annual insurance premiums of \$19,433.



Since 1978, 9 claims have been paid totaling \$36,875.

Regulatory

The Town's Flood Damage Prevention Ordinance (FDPO) was last reviewed and updated in April 2012 and is found in Chapter 107 of the local code. Floodplain management regulations and ordinances meet the FEMA and New York State minimum requirements.

Community Rating System

The Town of Pawling does not participate in the Community Rating System (CRS) program.

Other Capabilities Identified

Previous actions that are now on-going programs and capabilities are described below. Refer to Table 9.14-11 presented later in this annex.

The Town Highway Department does tree removal where it has jurisdiction to do so, however this is mainly in areas absent of power lines and other critical utilities. The Highway department also makes efforts to increase culvert size whenever possible when local culverts need repair or replacing.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

Land Use Planning: The Town has a Planning Board and Zoning Board of Appeals which review all applications for development and consider natural hazard risk areas in their review. Many development activities require additional levels of environmental review, specifically NYS SEQR and Federal NEPA requirements.

Town of Pawling Comprehensive Plan 2012: The Town completed a Comprehensive Plan, which included the identification of natural hazard risk areas like floodplains, wetlands, and steep slopes, as well as land use and zoning recommendations for managing those risks. Some of the recommendations included the following:

1. CEA/ESA Inventory and Evaluation: Review and inventory by a volunteer group of established Critical Environmental Areas (CEAs) and Environmentally Sensitive areas (ESAs), related regulations and monitoring. Collaborate with stakeholders and "green infrastructure" mapping group.
2. Periodic Review of Environmental Regulations: Staged review depending on age (year adopted) of regulations. Recommend amendments if needed.
3. Review of land development regulations: Evaluation of standards in subdivision and environmental regulations regarding provisions for flexibility, community character, walkability, natural resource protection and sustainability. Consider the need for amendments.

Conservation Planning: The Town of Pawling has a Conservation Board which is tasked with review where the land in question appears within an open area shown on the Town Open Space and Natural Resource Index. These open areas shall include the following:



- (1) All designated streams, intermittent streams, lakes, ponds and wetlands and lands adjacent to them.
- (2) All designated forest lands specifically outlined on the Index as open space.
- (3) All lands overlying those areas designated on the Index as aquifers.

Regulatory and Enforcement

Flood Damage Prevention Chapter 107: It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;
- B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- D. Control filling, grading, dredging and other development which may increase erosion or flood damages;
- E. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and
- F. Qualify for and maintain participation in the National Flood Insurance Program.

Freshwater Wetlands and Watercourse Protection Chapter 111: Its purpose is to regulate the dredging, filling, deposition or removal of materials, including vegetation; the diversion or obstruction of water flow; the placement of structures in, and other uses of, the ponds, lakes, reservoirs, natural drainage systems and wetlands located in the Town of Pawling; and the requirement of permits therefor, providing for the protection and control of wetlands, waterbodies and watercourses.

Zoning Code Chapter 215: The Town's zoning code includes districts and standards pertaining to the mitigation of hazards. These sections include the Floodplain regulations, stormwater management & erosion control standards.

Site Plan/Subdivision Review: The Town's Planning Board is tasked with site plan/subdivision review. The Planning board pays special attention to ensure that developments mitigate the issues associated with flooding or steep slopes.

Building Code Chapter 79: The building codes are strictly enforced to make new and renovated buildings as prepared as possible for hazard related incidents. The chapter includes a provision to allow the building inspector to make emergency repairs to protect the health safety and welfare of the residents.

Fiscal

Operating Budget: The Town's operating budget contains minimal provisions for expected repairs like snow removal and infrastructure repair after a storm or natural disaster.

Education and Outreach

The Town's website includes announcements on the home page for disseminating information. The Community web page includes contact information for community services and associations. The Planning Department is a member of the Dutchess County Planning Federation and attends trainings and researches best



practices that other communities are implementing. DPW takes classes and implements in hazardous reduction techniques in various capital improvements. The Town has planned to budget for training for personal including professional development geared towards health and safety.

9.14.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

Past Mitigation Initiative Status

The Town of Pawling has no prior mitigation strategy.

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Town of Pawling has not identified any mitigation projects/activities that have been completed, are planned, or on-going within the municipality.

Proposed Hazard Mitigation Initiatives for the Plan

The Town of Pawling participated in a mitigation action workshop in March 2015 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013). In May 2015, the Town of Pawling participated in a second workshop and was provided the results to the risk assessment to further assist with the identification of mitigation actions.

Table 9.14-10 summarizes the comprehensive-range of specific mitigation initiatives the Town of Pawling would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this Plan. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.14-11 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan.



Table 9.14-10. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
TP-1	Develop a Communications and Continuity of Operations Plan including an emergency notification system to ensure all personnel have access to emergency notifications, via various communications devices, and to reduce the disruption of essential services when an emergency situation occurs.	N/A	All Hazards	1, 5	Town Board, County Emergency Management	High – Maintain critical operations during an emergency	Medium	Staff Time, FEMA, NYS DHSES, County	Short	High	LPR	PR, ES
TP-2	Develop emergency plan for tree removal near power lines. Review and update, as necessary, the plan for tree removal near power lines on a biannual basis.	N/A	Coastal Storms, Severe Storms, Severe Winter Storms	2, 7	Town Board, DPW	Medium – Reduce risk of power outage, and improve accessibility after major storms.	Low	Staff Time, NYS DHSES, County	Short	Medium	LPR	PR, NR
TP-3	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 1 currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario". The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners.											
	See above.	Existing	Flooding, Severe Storm	2, 3	Municipal NFIP FPA; support from NYSOEM and FEMA	High - Reduced or eliminated risk to property damage from flooding	High	FEMA or other mitigation grant funding, NFIP flood insurance and ICC; property owner for local match.	Long-term DOF	High	SIP, EAP	PP, PI
TP-4	Notify and provide needed support to the facility manager/operator of Cedar Valley Townhomes Well #1 to evaluate the facility's flood vulnerability and to identify feasible mitigation options. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".	Existing	Flood, Severe Storms	2, 3	Municipal NFIP FPA	High – Reduced Risk to Critical Facility	Low	Staff Time, FEMA, NYS DHSES, County, Municipal	Short	Medium	EAP, LPR	PI, PP
TP-5	Notify and provide needed support	Existing	Flood,	2, 3	Municipal	High –	Low	Staff Time,	Short	Medium	EAP,	PI,



Table 9.14-10. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	to the facility manager/operator of Pawling Fire Department St. 1 to evaluate the facility's flood vulnerability and to identify feasible mitigation options. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".		Severe Storms		NFIP FPA	Reduced Risk to Critical Facility		FEMA, NYS DHSES, County, Municipal			LPR	PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued)
SRL	Severe Repetitive Loss Grant Program (discontinued)

Timeline:

Short	1 to 5 years
Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

Costs:

Where actual project costs have been reasonably estimated:

Low	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where actual project costs cannot reasonably be established at this time:

Low	Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds,

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High	Project will have an immediate impact on the reduction of risk exposure to



Costs:

grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

life and property.

Mitigation Category:

- *Local Plans and Regulations (LPR)* – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- *Structure and Infrastructure Project (SIP)*- These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- *Education and Awareness Programs (EAP)* – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- *Preventative Measures (PR)* - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- *Property Protection (PP)* - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- *Public Information (PI)* - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- *Natural Resource Protection (NR)* - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- *Structural Flood Control Projects (SP)* - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- *Emergency Services (ES)* - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 9.14-11. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
TP-1	Develop a Communications and Continuity of Operations Plan	1	0	1	0	0	0	1	0	1	1	1	1	1	0	8	High
TP-2	Develop emergency plan for tree removal near power lines. Review and update, as necessary, the plan for tree removal near power lines on a biannual basis.	0	1	1	1	0	0	1	0	1	0	1	1	0	0	7	Medium
TP-3	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 1 currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners.	1	1	1	0	0	0	1	1	1	0	0	0	1	0	7	Medium
TP-4	Notify and provide needed support to the facility manager/operator of Cedar Valley Townhomes Well #1 to evaluate the facility's flood vulnerability and to identify feasible mitigation options.	0	1	1	0	0	0	1	0	1	1	1	1	0	0	7	Medium
TP-5	Notify and provide needed support to the facility manager/operator of Pawling Fire Department St. 1 to evaluate the facility's flood vulnerability and to identify feasible mitigation options.	0	1	1	0	0	0	1	0	1	1	1	1	0	0	7	Medium

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



9.14.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.14.8 Hazard Area Extent and Location

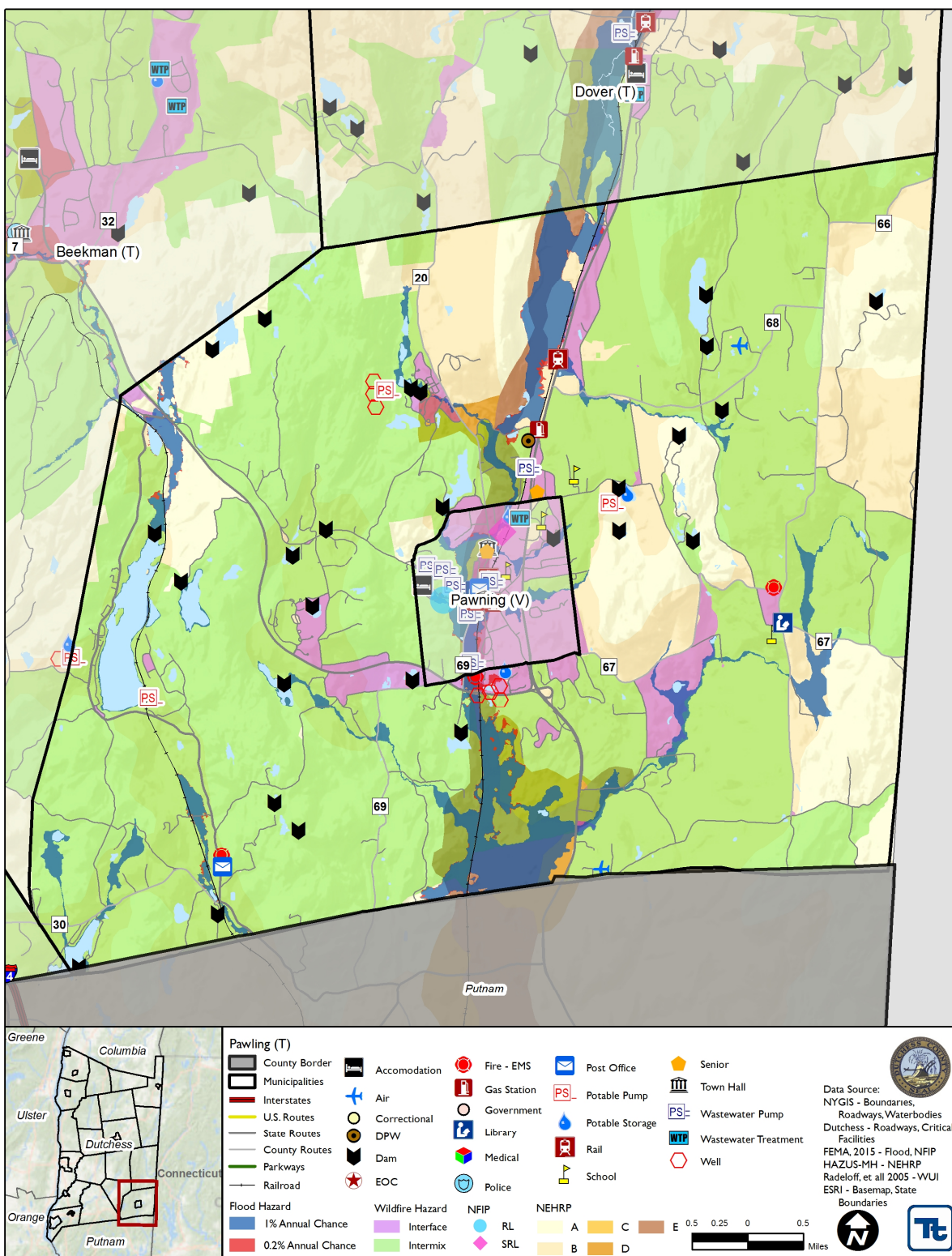
Hazard area extent and location maps have been generated for the Town of Pawling that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Pawling has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.14.9 Additional Comments

None at this time.



Figure 9.14-1. Town of Pawling Hazard Area Extent and Location Map



**Action Number:**

TP-2

Mitigation Action Name:

Tree Removal Emergency Plan

Assessing the Risk	
Hazard(s) addressed:	Coastal Storms, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	Loss of power due to fallen trees during severe storm and winter storm events.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Develop emergency plan for tree removal near power lines.
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Develop emergency plan for tree removal near power lines. Review and update, as necessary, the plan for tree removal near power lines on a biannual basis.
Mitigation Action Type	SIP, LPR
Goals Met	2, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium – Reduce risk of power outage, and improve accessibility after major storms.
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town Board, DPW
Local Planning Mechanism	Municipal Budget
Potential Funding Sources	Municipal Budget, NYS DHSES, County
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:

TP-2

Mitigation Action Name:

Tree Removal Emergency Plan

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Protect buildings from tree damages
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	1	
Environmental	0	
Social	1	
Administrative	0	
Multi-Hazard	1	Coastal Storms, Severe Storms, Severe Winter Storms
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	7	
Priority	Medium	